individuals or have no recommendations. The annual incidence of varicella in the general populations ranged from 13.7 to 76 per 100,000 in Asia-Pacific countries with universal vaccination, and from 100 to 512 per 100,000 in Asia-Pacific countries without universal vaccination. Studies in China, Japan, and South Korea showed varicella incidence peaking in spring and winter. Limited publication has reported varicella-related mortality in the Asia-Pacific region. Majority of the studies assessing health care resource utilization focused on inpatient care. The most frequent complications among hospitalized patients were skin and respiratory complications. Hospitalization rates associated with varicella reported in Australia and Taiwan were 0.11 and 60 per 1,000 cases, respectively. Medical costs associated with varicella were estimated in China, Japan, Singapore, Taiwan, and Australia. **CONCLUSIONS:** Epidemiology and economic burden of varicella in Asia-Pacific countries have not been extensively studied. Given limited varicella vaccination policy in this region, gaps in evidence need to be addressed to inform policy makers about the public health impact of varicella.

PIN8

INFLUENZA VACCINATION IN JAPAN AMONG THE GENERAL POPULATION AND HIGH-RISK GROUPS

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OBJECTIVES: Influenza vaccination rates have not been high enough in Japan. This study investigated current influenza vaccination rates among the general Japan population and rates among high-risk adults. **METHODS:** This study included data from the 2011-2012 Japan (Ns= 30,000) National Health and Wellness Surveys(NHWS) a cross-sectional, Internet-bases survey. The NHWS includes a nationwide sample of adults (18+ years) which included items on vaccination history as well as high-risk group status as defined by the World Health Organization(WHO). Vaccination rates and characteristics of vaccinees were reported descriptively. Logistic regressions were conducted to predict vaccination behavior from sociodemographics and risk-related variables. **RESULTS:** 17.17% of adults in Japan reported being vaccinated for influenza in 2012(compared with 19.17% in 2011). Even among patients in high-risk groups(CHD, chronic lung conditions etc.), vaccination rates were low, ranging from 24.83%(caregivers) to 42.86%(patients with immunodeficiencies). The most common reason for non-vaccination was the belief that it was not important(45.3%); other common reasons included believing that the vaccine is not effective (13.0%) and that prior infection leads to future resistance(12.3%). Respondents who were vaccinated were more likely to be female (OR=1.006), older(OR=1.212), university educated(OR=1.225), and employed(OR=1.242) with higher incomes(¥5MM or more) (OR=1.128) when compared to those who did not receive the vaccine. Those vaccinated also exercised more on average(OR=1.006), and feared needles less(OR=0.869). The strongest predictors of vaccination were having an immunodeficiency (OR=3.613), heart disease (OR=2.571), chronic lung(OR=2.025), chronic liver(OR=1.625), chronic renal condition(OR=1.608) or chronic metabolic conditions (OR=1.532) (all p<.05). **CONCLUSIONS:** Overall vaccination rates were low in Japan with no increase in vaccination rates from the prior year. All WHO-recommended vaccination groups had rates less than 50% and a large gap remains between these recommendations and vaccination behavior. In 2011, the influenza vaccination rates among adults in the United States were 36.2%, almost twice the vaccination rate in Japan.

PIN9

HEALTH CARE-ASSOCIATED INFECTION PREVALENCE AMONG GRADE A TERTIARY HOSPITALS IN CHINA: A META-ANALYSIS

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OBJECTIVES: To assess the prevalence of health care-associated infection (HAI) in 2012 among grade A hospitals in China. **METHODS:** Literatures were searched from PubMed, EMBASE, Cochrane Library, CNKI, cqvip, WANFANG, and SinoMed from Jan. 2012 to Mar. 2014. Literatures were screened and data was extracted by two independent reviewers, separately. Meta-analyses were conducted by R3.0.3 with random effect models. **RESULTS:** Fifty studies with 91,763 patients met the inclusion criteria and were included. The overall prevalence rate of HAI among all studies was 3.4% (95% CI: 3.1%-3.8%). Among the 50 studies, 25 were performed in Grade A tertiary hospitals and the rest 25 in grade A level 2 hospitals. The 25 studies performed in Grade A tertiary hospitals including 26,700 participants reported the pooled HAI prevalence as 3.5% (95% CI: 3.0%-4.1%). The aggregated HAI prevalence of the other 25 studies with 65,063 patients in grade A level 2 hospitals was 3.2% (95% CI: 2.7%-3.8%), which was not significantly different from that in Grade A tertiary hospitals (P=0.32). In the analyses of different infection sites, 18 studies targeting at lower respiratory infection (19,035 participants) revealed the highest combined constituent ratio as 46.6% (95% CI: 40.1%-52.3%). The pooled constituent ratio of 17 studies targeting at urinary system infection (19,949 participants) was 16.1% (95% CI: 11.5%-22.1%) and that of 19 studies targeting at upper respiratory infection (20,924 participants) was 15.2% (95% CI: 11.2%-20.2%). In the analyses of antibiotics using, 18 studies were identified (19,090 participants) in grade A tertiary hospitals and revealed pooled antibiotics using ratio as 42.96% (95% CI: 38.3%-47.8%). **CONCLUSIONS:** The aggregated prevalence rate of HAI was 3.4% across all general hospitals. The pooled prevalence rate among grade A tertiary hospitals and grade A level 2 hospitals showed no significant difference. Among all infection sites, lower respiratory infection accounts for the highest proportion.

PIN10

INFLUENZA VACCINATION IN CHINA AMONG THE URBAN POPULATION AND HIGH-RISK GROUPS

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OBJECTIVES: This study investigated current influenza vaccination rates among the urban Chinese population and high-risk adults. **METHODS:** This study included data from the 2013 China (N= 19,987) National Health and Wellness Surveys (NHWS), a cross-sectional, Internet-based survey. The NHWS includes a sample of urban (Tier I and II cities) adults (≥18 years) which included items on vaccination history and high-risk status defined by the World Health Organization(WHO). Vaccination rates and characteristics of vaccinees were reported descriptively. Logistic regressions were conducted to predict vaccination behavior from sociodemographics and risk-related variables. **RESULTS:** Only 13.69% of adults in urban China reported being vaccinated for influenza in 2013. Among patients in high-risk groups (coronary heart disease [CHD], chronic lung conditions etc.), vaccination rates were low for most groups, ranging from 5.7% (≥65 years) to 57.69% (chronic neurological conditions). The most common reason for non-vaccination was belief that it was not needed (17.8%); other common reasons for non-vaccination included believing that the vaccine is not effective (12.9%) and not getting a vaccine before (9%). Respondents who were vaccinated were less likely to be older (OR=0.982), currently married (OR=0.792) and university educated (OR=0.748), and more likely to be female (OR=1.403), a current smoker (OR=1.387) exercised more on average (OR=1.023), consumed alcohol regularly (OR=2.299), feared needles more (OR=1.111), and had higher incomes (RMB6,000 or more) (OR=1.62) compared with those not vaccinated. The strongest predictors of vaccination were having CHD (OR=2.161), chronic lung (OR=2.069), chronic liver (OR=1.891), chronic metabolic condition (OR=1.835), or chronic renal conditions (OR=1.758)(all p<.05). **CONCLUSIONS:** Overall vaccination rates were low in China. Most WHO-recommended vaccination groups had rates less than 20% and a large gap remains between these recommendations and vaccination behavior. In 2011, the influenza vaccination rates among adults in the United States were 36.2%, almost three times the vaccination rate in urban China.

PIN11

HOSPITAL QUALITY OF INFECTION CONTROL

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OBJECTIVES: Infection control and its Prevention system were established and its role, responsibility and right were clarified in Mongolia in May 4, 2010 by the decree of Minister of Health "Strengthening infection control system of Health care organizations and intensifying preventive actions of Hospital infections". The Goal of this study is to implement a guideline for evaluation and development of Infection control and its Prevention activities of all levels of health care organizations. **METHODS:** 1. Method of cross sectional study was used in research of current condition of Infection control Department activities. 2. Disinfection quality and safety was studied by Retrospective and Description methd. 3. Knowledge of disinfection and hand washing ofmedical staff are studied by descriptive and cross-sectional study. **RESULTS:** Assessment of current condition for activity of Infection control Department in national level was conducted among 6 tertiary level hospitals, 8 secondary level hospitals and 28 primary level hospitals. **CONCLUSIONS:** 1. Infection control for department and teams at health care organizations work with proper structure of management and members, and their activities vary according to its level. 2. The health care organization's hygiene standards and conditions are different, especially disinfectants and equipment are inadequate. Medical stuff's ability to hand disinfection is reduced according to its level. 3. Sterilizing quality is good enough, but its initial test and monitoring by technical methods are insufficient in primary health facilities. 4. 80.4% of medical staff attended infection control training and have adequate knowledge of hospital infections.

PIN12

A RETROSPECTIVE COHORT STUDY OF RISK FACTORS FOR DEATH AMONG HUMAN IMMUNODEFICIENCY VIRUS INFECTED ADULT PATIENTS

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OBJECTIVES: Globally, human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) reduces life expectancy by several years. Mortality is high among non-treated patients. However, the predictors of mortality have not been adequately studied. Hence, the main objective of the study was to determine predictors of mortality among HIV positive adults who are not on antiretroviral treatment, in a South Indian hospital. **METHODS:** A facility-based retrospective cohort study was conducted and data were collected from 150 patients who were registered but not on treatment from December 2011 to December 2013. Multiple logistic regression analysis was applied to identify the risk factors for mortality among HIV patients. **RESULTS:** A total of 40 patients were died during the follow-up period. Patients with age between 39-59 years (OR 0.49, 95% CI 0.28-0.84), baseline World Health Organization (WHO) staging III and IV (OR 0.09, 95% CI 0.04-0.20 and OR 0.11, 95% CI 0.04-0.27), patients with opportunistic infections (OR 4.93, 95% CI 2.87-8.84), were found to have less risk for mortality compared to their counterparts. Patients with low BMI (OR 2.05, 95% CI 1.21-3.49), CD4 count >200 cells/µl (OR 3.88, 95% CI 2.27-6.65) were found to have more risk. **CONCLUSIONS:** Age group 18-38, patients without opportunistic infections, baseline WHO staging stage I and II, low BMI, CD4 >200 cells/µl were all significant predictors of mortality. Therefore, patients with the aforementioned predictors should be followed closely and frequently.

INFECTION – Cost Studies

PIN14

CLINICAL OUTCOMES AND HOSPITAL COSTS ASSOCIATED WITH EMPIRICAL TREATMENT OF HOSPITAL-ACQUIRED PNEUMONIA WITH VANCOMYCIN OR LINEZOLID IN A CHINESE TERTIARY CARE HOSPITAL: A RETROSPECTIVE COHORT STUDY